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VAN PELT, YI & JAMES LLP  
10050 N. FOOTHILL BLVD #200  
CUPERTINO, CA 95014

EXAMINER

PATEL, KAUSHIKKUMAR M

ART UNIT PAPER NUMBER

2188

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/611,309

Applicant(s)

PATTERSON, R. HUGO

Examiner

Kaushikkumar Patel

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 23, 24 and 25 are objected. As it appears they are intended to depend on claim 22 and are treated as such for the remainder of this office action.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 21-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The term "candidate identifier" is not well known in the art. Therefore, the meaning of the term "candidate identifier" not defined in such a way to one skilled in the art to understand the claimed invention. The specification on page 12, lines 5-15 suggests that the candidate identifier may be derived using content derived summary or checksum or hash. As the meaning of this term is not clear from the specification, one of ordinary skill in the art would not be able to make and/or use the claimed invention without undue experimentation. For the purpose of this examination, the term

Art Unit: 2188

"candidate identifier" will be interpreted as the identifiers such as fingerprints or content derived summary as it is derived from it.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 12 and 16 are rejected under U.S.C. 35 112, second paragraph. The claims recites the limitation "short and shortest" in line 2. There is insufficient antecedent basis for this limitation in the claim. The terms "short and shortest" are relative and they are not clearly defined in the specification.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 7, 13, 20, 26, and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanfi (5,559,991) in view of Hudson et al. (US 2003/0204605 A1)

As per claims 1 and 30, Kanfi teaches: a method for processing a data stream comprising (figure 7): receiving a data segment (see abstract, a facility for storing in a backup memory stores blocks of memory sent by computers); determining whether data

Art Unit: 2188

segment has been previously stored (figure 7, as taught by checking previous version of file stored in archive memory?); in the event the data segment is determined not to have been previously stored, generating an identifier (signature) for specifying the data segment in a representation of data stream (figure 7, column 3, lines 22-30).

Kanfi teaches assigning an identifier but fails to teach unique identifier. Hudson teaches assigning unique identifier to data segment (paragraph [0034]).

It would have been obvious to one of ordinary skill in the art at the time of invention to assign sequence identifier as taught by Hudson in the method of Kanfi in order to be able to reassemble the data segments for easier data retrieval. (Hudson, paragraph [0034]).

As per claim 7, Kanfi teaches a storing a data block in data segment storage (figure 3).

As per claim 13, Kanfi teaches assigning a block number (figure 3, items 302,303 etc. column 4, lines 3-6).

As per claim 20 and 26, Kanfi teaches a data representation including storing signatures (column 3, lines 22-30) and also teaches signatures are applied for restoring a file (see abstract) and teaches a reconstruction list.

Claim 29 is rejected for the same reasons applied to claims 1 and 7, wherein Kanfi teaches storing of data segment if it is determined not to have stored previously.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-5,8-11,14-15,17-18, 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanfi (5,559,991) in view of Hudson et al. (US 2003/0204605 A1) as applied to claims 1 and 7 above, and further in view of applicant's admitted prior art (herein after APA).

As per claims 2-3,14,15,17,18 the difference between Kanfi and the claims is that the claims recite generating content derived summary, fingerprint. Kanfi and Hudson fail to teach generating a fingerprint or content derived summary; however Kanfi teaches generating signature (column 3, lines 14-21). As per APA (page 1, lines 10-20), the identifier may have been composed in many different ways. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of invention to use content derived summary or fingerprint in the system of Kanfi and Hudson to make the data system more collision free.

As per claim 4, according to APA there is a possibility of collision using content derived identifiers, generating a wider range of identifier lowers the probability of collision (page 2, lines 1-5). It would have been obvious to one of ordinary skill in the art at the time of invention to store data segments itself instead of storing both content

derived identifier and data segment in the system of Kanfi and Hudson to conserve the space of storage device.

As per claim 5, Kanfi teaches, whether the data block previously stored, comparing the previously stored signature (figure 2) to newly generated signature (column 3, lines 38-50). Thus Kanfi teaches locating of content derived summary to compare the old and new signatures.

Claim 8 is rejected for the same reasons as applied to claims 1-7, as Kanfi teaches a method for processing a data stream wherein determining whether the data segment previously stored includes generating a content derived summary (claims 1-2); in the event that data segment is determined not to have been previously stored, further including: storing the data segment in the data segment storage location; and updating a data structure for storing the content derived summary, the unique identifier, and the data storage location (see figure 3, which shows content derived summary table created for new data blocks and updating of table, column 3, lines 22-30, figure 3, shows block identifiers and data blocks stored in the data segment storage)

As per claim 9, Kanfi teaches the storing of data blocks and identifiers on the tables in archive memory (figure 3), thus Kanfi inherently teaches accessing the storage location.

As per claims 10-11, Kanfi teaches all the tables and archives can be implemented at one storage location and hence teaches the single access of storage location and a region of the data structure. (column 8, lines 27-30).

Regarding claims 27 and 28, applicant's admitted prior art teaches that in the event that data segment found to be preciously stored, the identifier is stored instead of data segment in the data sequence. Thus APA inherently teaches locating of identifier previously assigned to the data segment (claim 27) and storing of identifier (claim 28) in reconstruction list (specification page 1, lines 15-18).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanfi (5,559,991) in view of Hudson et al. (US 2003/0204605 A1) as applied to claim 1 above, and further in view of Shnelvar (US 6,374,266).

As per claim 6, Kanfi teaches determining whether the data segment has been previously stored. Kanfi and Hudson fail to teach locating data segment. Shnelvar teaches locating data segment and comparing the data (column 19, lines 1-3). It would have been obvious to one having ordinary skill in the art at the time of invention to use the method of data comparison of Shnelvar with the method of Kanfi and Hudson to avoid collision. (column 18, lines 41-50).

As per claim 19, Shnelvar teaches use of compressed data. It would have been obvious to one having ordinary skill in the art at the time of the invention to use



Art Unit: 2188

compressed data with the system of Kanfi and Hudson to eliminate duplicate clusters of data source and hence save storage space (column lines 56- 65).


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaushikkumar Patel whose telephone number is 571-272-5536. The examiner can normally be reached on 8.00 am - 4.30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMP

  
Kaushikkumar Patel  
Examiner  
Art Unit 2188

  
MANO PADMANABHAN  
SUPERVISORY PATENT EXAMINER  
6/3/05